Preventing hair contamination in the food and meat sectors

When hair is found in food it commonly causes a sickening reaction. Consumers lose their appetite, which in turn reduces both demand and sales, severely damaging the brand. Today, the use of social media means one customer finding a single hair could turn into a major issue. If food is found to be contaminated it will lead to a lot of time having to be invested in finding the cause, implementing corrective actions and having to closely monitor compliance.

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The University of Bolton, UK, conducted the first ever study into hair contamination and how to target zero hair complaints. With the largest ever wearer trials involving 144 respondents, their research revealed the science behind hair containment and the effectiveness of products, considering a range of different factors.

Professor Barry Stevens, FTTS, President of the Trichological society 2014-2016 revealed that 13-43 hairs could be shed from the scalp of each employee in an eight hour period, equating to 1,300-4,300 hairs per 100 people.

This figure is significantly augmented by thermal injury, severance and chemical insult. Meaning that modern hair care practices such as the use of hair dryers, straighteners, bleaching, colouring etc, cause blistering of the hair shaft leading to eventual severance, often referred to as split ends. Conditioners do not repair damage caused by these modern practices.

Professor Stevens also concluded that hair grows in a spiral configuration with the angle of growth changing all across the scalp, which is unique to each individual. University research concluded that to contain hairs they need to be folded flat and held with as many contact points as possible along the hair shaft.

Perhaps one of the most important findings of the study, is that hair will be pushed up through the needle gaps in standard woven and knitted fabrics such as mob caps. According to Professor Subhash Anand MBE, Professor of Technical Textiles, University of Bolton, 'this is a totally unsuitable material' for use in head coverings.

Using this research Aburnet have developed hair containment products that use their patented fold and hold and HairBarrier technologies which have been certified for hair containment for use in food environments.

Products such as the KleenCap Max, HairTite Standard and HairTite HiCare feature a unique recoiling structure that adapts to an individual's head, creating numerous contact points all over the head to effectively contain hair. HairBarrier products create a positive attraction to the Keratin protein in the hair, further helping to hold hair. Importantly the product's light recoiling structure works to contain the shed and damaged hair.

Meeting customer needs

Aburnet's extensive range means whatever the food environment they can provide the correct products to suit your needs.

For the meat industry, where neck hair contamination is a risk, Aburnet have developed the HairTite HiCare Neck Guard, KleenCap Max Neck Guard and the Neck Shield. These products are necessary in these sectors as often meat carcases are carried on the shoulder, which could make contact with the neck area.

When it comes to hair contamination one of the primary risks is hand contact with the scalp. Whether an individual is wearing gloves or not, if they were to make contact with the scalp this could pose a severe food safety risk.

Professor Stevens states that 'the scalp can be a haven for bacteria, for instance Staphylococcus aureus, which is known to be a potential cause of food poisoning'. He goes on to say he is 'unable to eliminate hair shafts as disease carriers, however, hand contact with the scalp is more likely to act as a microbial carrier, therefore a complete head covering is recommended'.

When working in hot environments it is important that products do not make the wearer sweat as this will increase the chance of hair contamination as the individual is likely to scratch and fidget.

Innovation and certification

Aburnet's HACCP International certified KleenCap, Beard, Arm and NeckShields include unique StayCool technology, which works like performance sportswear. It transports moisture, such as sweat, through the fabric away from the wearer allowing it to evaporate into the atmosphere, helping regulate the wearer's body temperature.

Aburnet's products have been proven to be effective and consequently have been certified by HACCP International. Moreover, using Aburnet's products a national British supermarket chain has evidenced an 80% reduction in hair complaints against traditional head coverings such as mob caps.

Using Aburnet's free training and auditing tools enables you to educate staff through how to wear and best practice guides, as well as accurately pinpointing areas of non-compliance using discreet online auditing tools that can be carried out using any device.

In the food industry today costs and reducing environmental impact is a constant pressure. One way to save both cost and environmental impact would be to re-use head coverings. This could be very dangerous as even professional laundries will not guarantee the removal of residual hairs from textile articles as the mechanical action during washing is insufficient to remove all the hairs that get embedded in textile structures.

So how can we safely re-use head caps without compromising food quality?

The University of Bolton have developed HairGon; the advanced formula wash additive that dissolves residual hairs during washing. Simply added to the wash it completely dissolves the residual hairs found in used head coverings making them safe for re-use.

By re-using effective hair containment products washed with HairGon after each use, industry reports 75% reduction in hair complaints with reduced costs. ■

References are available from the author on request